13860ID Weil

ROUTE PROTECTION IN A COMMUNICATION NETWORK

ABSTRACT

5 A communications network comprises a lower transport layer and an upper overlay incorporating a plurality of routers. Adjacencies are defined between respective pairs of routers. Path protection is provided by defining a software model of the overlay of the network and defining in the model a hierarchy of protection levels for the main path. Each protection level is characterised by a respective set of one or more broken

10 adjacencies in the model, the adjacencies to be broken being determined from a knowledge of the underlying topology. A protection level is selected and a protection path avoiding the broken adjacencies associated with that protection level is calculated. If this calculated path is not available in the real network, a lower protection level in the hierarchy is selected and the protection path calculation repeated. The process

15 continues until a suitable protection path is identified.